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Lincolnshire Naturalists' Union Transactions.

1921.

Edited by
ARTHUR SMITH,
F.L.S., F.R.Met. S., F.E.S.,
AND
R. W. GOULDING,
F.S.A.

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Lincolnshire Naturalists' Union.

Founded June 12th, 1893.

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LINCOLNSHIRE NATURALISTS' UNION.

Statement of Account from 1st January to 31st December, 1921.

RECEIPTS.	£	s.	d.
By Balance in Bank, 31st Dec., 1920 ...	20	0	8
„ Balance due from Secretary	0	7	0
„ Life Members' Donations invested in Savings' Bank 54 2 9			
Interest thereon ... 1 7 0			
	55	9	9
„ New Life Member's Donation ...	5	0	0
„ Members' Subscriptions	29	6	6
„ Copies of Transactions sold	0	8	0
„ Bank Interest, less Commission ...	0	5	0
„ Cheque omitted, due to Treasurer ...	0	10	9
£111	7	8	

PAYMENTS.	£	s.	d.
To Subscriptions to the 'Naturalist' ...	0	15	6
„ Printing and Stationery	2	17	3
„ Printing Transactions, 1920, and Block for Illustration	24	14	10
„ Printing Index and Title, Vol. 4 of Transactions	3	10	0
„ Postage and Stamps	5	1	6
„ Expenses of Meetings	1	3	10
„ Life Members' Donations in Savings' Bank... ... 54 2 9			
Interest 1 7 0			
	55	9	9
„ New Life Member's Donation ...	5	0	0
„ Balance in Bank ... 12 5 1			
Due from Secretary ... 0 9 11			
	12	15	0
£111	7	8	

7th February, 1922. Examined and found correct,

J. S. SNEATH, *Treasurer.*

E. E. BROWN, *Auditor.*

PRESIDENTIAL ADDRESS

TO THE

LINCOLNSHIRE NATURALISTS' UNION,

delivered at Lincoln, 10th November 1921,

by the Rev. Frank S. Alston, m.a.

In trying to select the subject for an address, a man who is just an ordinary field naturalist finds that there are innumerable topics in which he is interested, and about which he could listen with enjoyment to the learning and experience of his colleagues; but when he is himself about to take up the position of instructor, he discovers that his choice of subjects is decidedly limited. A botanist in the field is delighted to find a rare plant, and the rarer the better, but there is not much to be said about a rarity, and even that little is not of much interest to those who have never seen the plant, and are not likely to see it. So, I have gone to the other extreme, and have selected for my subject

THE ASH (*Fraxinus excelsior*).

It is a tree we all know, growing in every parish, commonplace we may say, but yet of great economic value, and therefore of great interest.

It belongs to the Order *Oleaceae*, and is associated with the Olive, the Lilac and the Privet (the last-named being the only other member of this Order that is native to Britain), as well as with the beautiful garden shrub *Forsythia*. These trees appear to be very unlike one another, but it is stated by Loudon that both the Lilac and the Olive will graft on the Ash.

Other species of *Fraxinus*, about sixty in number, occur throughout the northern temperate regions, besides one each in Cuba, Java and the Philippines. I particularly examined the Ashes in Kew Gardens, but they were mostly young trees with a strong family likeness, from which I did not gain much information.

Fraxinus excelsior is indigenous throughout the greater part of Europe, the north of Africa, and some parts of Asia. It is so abundant in our own county as to have been called 'the Lincolnshire weed'. It is no doubt a true native of Britain, and it occurs in the fossil state in the interglacial beds at Hitchin, and the neolithic deposits at Crossness, in Essex; but it has been suggested that it formed no part of the ancient forests of Scotland, because no Ash seeds occur there in the peat mosses (Prof. Jameson).

Among our Scandinavian ancestors the Ash was in high repute as being a sacred tree under which the Gods met in council; and even down to quite recent times it has been the object of several superstitions. Thus, a young Ash has been split, and ruptured children passed through the chasm in the hope that as the tree healed, the child would also do the same. In some cases, a hole has been bored in the tree, and a shrew mouse imprisoned in it, to make the tree a 'Shrew Ash', the branches of which were supposed to cure cramps and lameness in cattle.

Gilbert White, in his *Selborne*, gives an account of these two superstitions, and of the former he writes under date 8 January 1776:

> 'In a farm-yard near the middle of this village stands at this day a row of pollard-ashes which, by the seams and long cicatrices down their sides, manifestly show that in former times they have been cleft asunder. These trees, when young and flexible, were severed and held open by wedges, while ruptured children, stripped naked, were pushed through the apertures, under a persuasion that, by such a process the poor babes would be cured of their infirmity. As soon as the operation was over, the tree, in the suffering part, was plastered with loam, and carefully swathed up. If the parts coalesced and soldered together, as usually fell out, where the feat was performed with any adroitness at all, the party was cured; but where the cleft continued to gape, the operation, it was supposed, would prove ineffectual. Having occasion to enlarge my garden not long since, I cut down two or three such trees, one of which did not grow together. We have several persons now living in the village who, in their childhood, were supposed to be healed by this superstitious ceremony'.

It is perhaps evidence of the high esteem in which the Ash was anciently held that we have so many place names derived from it. There are at least 24 examples of Ashby, 9 of Ashfield, 14 of Ashford, 16 of Ashley, and 28 of Ashton, and there are many other names of places, of which Ash forms the first syllable.

In his Natural History, Pliny has a very curious paragraph about the virtues (or supposed virtues) of the leaves of the Ash. As translated by Philemon Holland, the passage reads thus:

> 'They be excellent good, and nothing so soveraigne can be found against the poison of serpents, if the juice thereof be pressed forth and given to drinke; or to cure old ulcers, if they be applied and laid thereto in the manner of a Cataplasme: nay, so forcible is their vertue, that a serpent dareth not come neare unto the shadow of that tree, either morning or evening, notwithstanding at those times it reacheth farthest; you may be sure then they will not approach the tree itselfe, by a great way. And this am I able to deliver by the experience which I have seene, that if a man doe make a round circle with the leaves thereof and environ therewith a serpent and fire together within, the serpent will chuse rather to go into the fire, than to flie from it to the leaves of the Ash. A wonderfull goodnesse of dame Nature, that the Ash bloometh and flourisheth alwaies before that serpents come abroad; and never sheddeth leaves, but continueth greene untill they be retired into their holes, and hidden within the ground'.

The name Ash is derived from the Anglo-Saxon *aesc*, the Danish, Swedish, German and Dutch names being very similar. From the toughness of its wood it was much used for spear shafts, and in boat-building; and the same Anglo-Saxon word came to mean an Ash, a spear and also a boat. The perfectly different French name *fresne* (now frêne) was in the same way used for a spear as well as an Ash. Homer tells us that the spear of Achilles had an ashen shaft. The suggestion that the colour of the bark (like burnt ashes) gave rise to the name is probably devoid of truth. It has been pointed out that the root is very similar to that of the Greek *axiné*, the Latin *axis*, and our words *axe* and *axle*, from the tough wood of this tree having at all times been preferred for axe-handles

and axle-trees (R. C. A. Prior). The name *Fraxinus* is said by Linnaeus to be taken from the Greek *phraxis*, in allusion to the facility of splitting its wood.

The Ash, which Gilpin calls 'the Venus of the Forest', loves a fresh, deep, light loam which is not too dry. In such conditions it will come to full maturity in sixty years; but in poorer soils it takes eighty years. It delights in growing near running water, but cannot endure water that is stagnant. It is specially destructive to the quick in hedges, and also to the crops beneath its shade, and to pasture grass. Evelyn says: 'It is by no means convenient to plant Ash in plough-lands, for the roots will be obnoxious to the coulter; and the shade of the tree is malignant both to corn and grass, when the head and branches over-drip and emaciate them. ..... The Ash delights in the best land, which it will soon impoverish, yet grows in any, so it be not over stiff, wet, and approaching to the marshy, unless it be first well drained. By the banks of sweet and crystal rivers and streams I have observed them to thrive infinitely'. The idea that the shade of the tree and its drippings were malignant is probably due to the nature of its roots which spread widely, and send out many fibres which approach the surface closely, and so check the growth of almost all other vegetation. Hence the Ash is a very bad neighbour by the side of a garden, or in a hedgerow. In making a short cut across country, it is often worth while to make for an Ash growing in a hedge, because there you are most likely to find a gap in the quick, or at least a weak place.

By means of its wide-spreading roots the Ash has a very firm hold on the ground, so that one hardly ever sees an Ash torn up by the roots by the wind, unless it grows beside a stream, and is therefore prevented from spreading in one direction. Mr. Peacock tells me that if you want to kill Ashes in fences, you can do so by making a small farm-yard manure heap under each one. It will kill them at once, and the same result can be obtained by the use of diluted manure water.

When a young Ash is cut down, fresh Ash poles will

grow up round the old stool, and these being cut in due time, the stool will be further and further extended until it grows to a considerable size.

The timber of the Ash is very valuable (second only to the Oak), and it is the only hard wood from which a quick and certain return can be obtained. It may even be said to be of greater importance than the Oak, because Oak of good quality can be obtained from abroad, whereas no foreign Ash can be procured which is equal to Ash timber of British growth. The wood is remarkable for toughness and elasticity, and is suitable for a great variety of uses (too many to be enumerated here) from ploughs to walking sticks, and from parts of waggons to hoops, and even to Cupid's arrows, though, I fear, such things are out of date. Ash poles have a ready sale, and are in constant demand for many purposes. De Candolle asserts that the timber is so elastic that a joist made of it will bear more before it breaks than one of any other European tree.

The Ash readily grows from seed in our climate, and the seedlings are quicker in growth than transplanted nurslings, shooting up seven feet in three years, which is twice the height of the latter, and available for profit as Ash poles from twelve to twenty years, unless injured by rabbits, or by deer, which eat the bark round the roots of even old trees. Although the Ash is a bad neighbour to other trees, yet it is a good thing to have it with Larches, because Ash seedlings will renew the plantation, and the parent trees throw up vigorous shoots from the old stools.

In winter the black buds are remarkable and characteristic. They give out blossoms some time before the leaves, but the flowers are very poor things, having neither calyx nor corolla. Stamens and pistils are borne by the same or separate flowers, and both kinds, or only one, may be found on one and the same tree. The pistil is greenish-yellow, and the stamens are a very dark purple. The flowers are succeeded by bunches of keys, but only in the case of the trees which have female flowers. The keys are ripe in October, but many

of them remain on the tree all the winter, and it is worthy of notice that each key has a little twist in its wing or sail, so that when at last they are carried away by the wind, they spin along through the air, and reach the ground seed end first. They do not, however, germinate until the spring. So far as I know, the keys are not eaten by any of our wild animals or birds, and they thus depend for their distribution entirely upon the wind.

I have been told that in my own neighbourhood some men used to go round "ash-keying", that is beating off the Ash keys into sheets, after which they were stored in graves until required for use by the nursery men.

The leaves of the Ash are very late in making their appearance, but the time varies a good deal from year to year, from the third week in April to the middle of May; but occasionally the Oak is even later than the Ash, and then we are taught by the old saying to expect a wet summer. This saying is true so far as my observation goes, though I have never yet heard a scientific explanation why it should be so. Young Ash leaves are very susceptible to frost, but it is very rarely that they are caught by it, because the tree is cautious in putting forth buds, a fact which is noted by Lord Tennyson, who was a very accurate observer of nature, especially in his native county. Thus, in *The Princess*, he writes:

> 'Why lingereth she to clothe her heart with love,
> Delaying, as the tender ash delays
> To clothe herself, when all the woods are green'.

When at last the Ash does come out, then, as some of our gardeners say, we may with safety bed out our half-hardy flowers.

In the autumn also the Ash appears to be the first to feel the cold, and having been the last to burst into leaf, it now sets the fashion, and is the first to shed its leaves.

Ash leaves are said to have been formerly much used for fodder both for horses and cattle, but in the autumn they are injurious to the milk of cows, and the butter becomes rank if they have been eaten by the animals. In 1826 there

was an exceptionally dry summer, and Mr. Peacock has told me that the lower branches of Ashes were cut off for stock to feed on the foliage and bark.

The variety *pendula*, commonly called the Weeping Ash, is well-known, and is effective when grafted on a very tall stem. It was first discovered at Gamlingay, in Cambridgeshire, more than a century and a half ago. There is also a variety bearing simple leaves, known as *monophylla* (sometimes described under the names *heterophylla*, *simplicifolia*, or *diversifolia*), but it is not at all common. There is one in this county at Stubton, which in 1906 was reported by Lord Kesteven to be 67 feet high, and 8 feet 1 inch in girth. We have, however, a much larger one in the park at Scrivelsby, a very fine and beautiful tree, the girth being 13 feet 1 inch at about four feet from the ground; while of the common Ash the largest specimen I can find is 17 feet 1 inch in girth at the same height, which I think is unusually large.

The Flowering Ash and the Manna Ash (*Ornus Europaea* and *O. rotundifolia*) are natives of Italy and Sicily, the substance called manna being the concrete juice which exudes after the bark has been wounded. Manna tastes like sugar, with a slight suggestion of bitterness; it is a very mild tonic and purgative, so gentle in its operation as to be peculiarly suitable for infants. There is a fine specimen of *Ornus Europaea* in the Rectory grounds at South Elkington; and there is also one in the Botanical Gardens at Oxford.

So far, I have said nothing as to the age to which an Ash grows, and this is a delicate point on which most authors are silent. As it is a quick growing tree, so also it quickly goes to decay. If the woodpeckers are seen busily at work on a tree, it signifies that its best days will soon be over. Soil and situation make a great difference, but the wood may be regarded as at its best when a tree is between thirty and sixty years of age, while its allotted span may be put down as two hundred years, a short life compared with that of some other trees, especially the Oak. There was, however, formerly one at Carnock, in Stirlingshire, which was reputed to be about two

hundred and seventy years old. It is said that when the trees are grown on too wet a soil, the wood is much less valuable.

Some mention ought to be made of the insects that feed on the Ash, though it is not by any means a favourite food-plant. *Eupithecia fraxinata* (the Ash Pug) is named from it. I have captured it in my school-days, but it is an insignificant moth, and scarce in Lincolnshire. *Catocala fraxini* (the Clifton Nonpareil) is also very scarce, but it has been recorded for this county at Bourne and Hogsthorpe. It is a magnificent insect, perhaps the finest of all our British Moths. *Cossus ligniperda* (the Goat Moth) is very destructive to Ashes. It feeds on several sorts of trees, but frequents the Ash more than all the other trees put together; and when we find an Ash blown down, we may nearly always find traces of the Goat Moth as the cause of its ruin. The caterpillar is very large, 3 inches in length. It bores into the solid wood, and does irreparable damage, remaining for three years in the larval state. Though the marks of its depredations are very common, we rarely see the perfect insect. Miss Ormerod recommends thrusting wire up the borings, or injecting paraffin, to destroy the caterpillars, but it seems to me that it would be very difficult to find the borings when they are small, and when they are large the mischief is already done. The caterpillars are often very numerous, as many as sixty having been taken from one tree, so that the destruction of a few individuals would not make any appreciable difference. I may mention too *Hylesinus fraxini* (the Ash Bark Beetle), a pest which is said to be dangerous only in cases where the trees are already unhealthy. This beetle sometimes causes curious malformations of the branches.

As to birds, Ash keys do not appear to provide food for any, but many species find comfortable homes in the branches of the tree. Mr. Peacock gives a very interesting list of birds whose nests he has found in the branches of the Ash, or in holes on the trunk, twenty-one in all, namely Redstart, Barn Owl, Green Woodpecker, Magpie, Carrion Crow, Garden Warbler, Nightingale, Missel Thrush, Wild Duck (in pollard)

Sparrow Hawk, Kestrel, Hobby, Common Buzzard, Long-eared Owl, Tawny Owl, Tree Sparrow, Starling, Pied Fly-catcher, Rook, Ringdove and Green Spotted Woodpecker.

In conclusion, I am sorry that Mr. Peacock is not able to be with us to-day. I have to express my obligation to him for many notes, and I hope that his health may permit him to take part in our proceedings next year. I wish also to thank all the members for their kindness and forbearance to me during my year of office as President, and for the pleasant time I have had while serving in that capacity.

REPORT OF THE HON. SECRETARY, 1921.

In submitting my sixteenth Annual Report, I am pleased to state that the membership is well maintained, withdrawals and resignations being balanced by the election of new members. Three Field Meetings have been held during the year.

The One-Hundred-and-Sixth Meeting was held in the Grimsby area on the 5th July. Humberstone foreshore was re-visited, but the conditions were altogether abnormal owing to the great and long-continued dryness, and the burnt-up state of the vegetation disappointed the botanists who had hoped to renew acquaintance with the maritime flora of the district.

The One-Hundred-and-Seventh Meeting was held at Benniworth Haven on the 9th August. This meeting was very successful and enjoyable. Ponds and streams yielded excellent results.

The One-Hundred-and-Eighth Meeting was held at Frieston on the 8th September. On this occasion also the botanists suffered disappointment, for the remarkable drought still prevailed, and in consequence littoral plant-life was

scanty, and what little there was presented a very dwarfed and unusual aspect.

On the whole, however, the meetings yielded many records and much material that will be worked out, and incorporated in the reports of the Sectional Officers.

The Annual Meeting was held at Lincoln on the 10th November, when the retiring President, the Rev. F. S. Alston, M.A., delivered an address, his subject being "The Ash" *(Fraxinus excelsior)*. The Officers for the ensuing year were elected, the new President being the Rev. Dr. Claye.

In conclusion I regret to state (and I am sure that my regret is shared by all the members) that Mr. Guy W. Mason has removed from this county, and has consequently retired from the position of Secretary of our Entomological Section which he has very ably filled for a number of years.

ARTHUR SMITH.

SECTIONAL OFFICERS' REPORTS, 1921.

CONCHOLOGY.

J. F. MUSHAM, F.E.S., President.

I present this report, as the Secretary of the Section informs me that he has been unable to compile one, in consequence of the protracted illness of his father.

My report is brief, because it appears that during the year there has been but little investigation by members except on the occasion of the Field Meetings. On those occasions, however, the conchological members of the Union have shown that their interest and enthusiasm are as keen as ever.

At the Frieston Shore meeting on the 8th September the very interesting *Paludestrina ventrosa* was found in great abundance, and along with the type were specimens of the variety *montrosa*, constituting a new varietal record for the county. *P. stagnalis* and *Littorina rudis* were also found in as great plenty as the species already named.

The preceding meeting at Benniworth Haven on the 9th August resulted in the finding of a great number of specimens. Twenty-two species were taken, including five that were new to the sub-division, and two that were new varietal forms of shells that had already been recorded for that area, namely *Hyalinia crystallina* v. *contracta* and *Anodonta cygnea* v. *incrassata*. There was also one specimen of *Pisidium casertanum*, which confirms its inclusion in each of the two large divisions of the county.

In 1888 *Testacella scutellum* was recorded for Grantham, Div. 15 N, but the record was subject to doubt. This species can now, however, be indubitably recorded for that division, as Miss S. C. Stow found a living specimen on the 30th March.

The Conchological Society's referees (Messrs. Oldham, Stelfox, F. Taylor and J. W. Taylor) have very kindly verified these species.

ENTOMOLOGY: COLEOPTERA AND DIPTERA.

W. Wallace, M.B., Ch.B., F.E.S.

The past year has been one peculiarly unsuitable for collecting insects, and but little work has been done in that direction. Most of the ponds and ditches were dried up, and this prevented my study of those insects in which I am most interested.

Coleoptera. An extremely interesting and unexpected addition to our County List is a specimen of *Dianous coerulescens* Gyll., which I took in moss in a swiftly running stream at Benniworth Haven on the occasion of the L.N.U. Meeting held there August 9th, 1921. It is typically a mountain species, occurring in waterfalls. If our County is thoroughly worked, it may be found to supply us with many unexpected species.

I am pleased to report the receipt of a long list of Coleoptera taken some years ago in the County by Mr. Walter Bevins, of Algarkirk, Boston. It contains a number of new

County records, and these will, later on, be published in the Transactions, together with all other new records, as an 'Additional List of Lincolnshire Coleoptera'.

Diptera. Our lists of this Order are scanty, and in these days of altered (and altering) nomenclature, one hesitates to make records in many cases without the help of experts working at particular groups. I have been fortunate in this respect in receiving assistance from Mr. F. W. Edwards, of the British Museum (Natural History), and from Mr. J. E. Collin.

As I have also indicated, in 1921 the breeding places of aquatic Diptera were dried up, but in the preceding year I obtained the larvae, pupae and perfect insects of the following species of gnats: *Ochlerotatus waterhousei* Theobald, at Irby Dale Woods, where it breeds in one small pond; *O. nemorosus* Meigen, commonly at Bradley, Irby and Linwood; *O. rusticus* Rossi, the common species at Bradley Wood; *Theobaldia annulata* Schrank, very common at Irby; and *Culicella morsitans* Theobald.

In the summer of 1920 I took several specimens of both sexes *Platypeza infumata* Haliday in my garden at Grimsby; *Dicranomyia ornata* Mg. on the undersides of butterbur leaves at Freshney Bogs; *Molophilus bifidus* Goet, at Humberstone Marshes. These two latter species are of very special interest, their occurrence here being mentioned by Mr. F. W. Edwards in his 'British Limnobiidae', published in the Transactions of the Entomological Society of London, 1921.

"RURAL STUDIES".—A series of pamphlets by the late Rev. E. Adrian Woodruffe-Peacock. Copies are available, and particulars will be sent if application be made to the Hon. Secretary of the L.N.U., City & County Museum, Lincoln.

ENTOMOLOGY: LEPIDOPTERA.

H. C. Bee.

The very dry summer hindered collecting, insomuch that many species that pupate in the ground were unable to emerge owing to the dryness and hardness of the soil. The prolonged period of hot weather was responsible for many variations in respect of the appearance of broods, and had generally, I believe, a tendency to increase the number of broods.

A second brood of the Pearl-bordered Fritillary (*Argynnis euphrosyne*) appeared in August. A half-grown larva of the Lime Hawk (*Smerinthus tiliae*) was taken at Woodhall Spa on the 30th July, and the next day a fully fed example was taken. A very small larva of the Pebble Prominent (*Notodonta ziczac*) was taken as late as October 9th, when it should have been in its pupa stage.

Eggs were laid by the Setaceous Hebrew Character (*Noctua c-nigrum*) on the 1st July. These produced larvae, seven of which pupated very rapidly from August 19 to 21. The moths of these emerged September 11th and 12th, but the remainder of the batch of larvae are passing the winter in that stage, and will not pupate until the spring. The seven moths have anticipated their imago existence by nearly a year!

A batch of cocoons of the Gold Spot (*Plusia festucae*) obtained August 20-27, produced moths August 27-31, about eight months before their usual time!

Other instances of abnormal appearances have reached me, but the particulars which I have given are sufficient to indicate the extraordinary character of the past season.

So far as my personal observation goes, *Pyrameis atalanta* has outnumbered *Vanessa io;* and *Gonepteryx rhamni* has been less abundant this season than in recent years.

The following are among the more noteworthy records that have reached me: *Argynnis paphia* (Silver-Washed Fritillary), *A. selene* (Small Pearl-bordered Fritillary), *Vanessa cardui* (Painted Lady), *Thecla quercus* (Purple Hairstreak), *Satyrus malvae, Thanaos tages, Carterocephalus palaemon* (Grizzled, Dingy and Chequered Skippers), *Chœrocampa elpenor* (Elephant Hawk), *Smerinthus tiliae* (Lime Hawk), *Macroglossa stellatarum* (Humming-Bird Hawk), *Setina mesomella* (Four-dotted Footman), *Nemeophila russula* (Clouded Buff), *N. plantaginis* (Wood Tiger), *Notodonta dictaea, N. dictaeoides, N. dromedarius* (Great and Lesser Swallow Prominents and Iron Prominent), *Acronycta tridens* (Dark Dagger), *A. leporina* (Miller), *Agrotis agathina* (Heath Rustic), *Polia chi* (Grey Chi), *Plusia moneta* (Monkshood Moth), *Geometra papilionaria* (Large Emerald), *Abraxas adustata* (Clouded Magpie) and *Boarmia roboraria* (Great Oak Beauty).

The following have been recorded by the President (the Rev. F. S. Alston) and his son (Mr. Edward C. Alston):

Asphalia diluta (Lesser Lute String), *Tapinostola hellmanni* (Mere Wainscot), *Nonagria typhae* (Bulrush Moth), *Xylophasia sublustris* (Reddish Light Arches), *Agrotis puta* (Shuttle-shaped Dart), *Amphipyra pyramidea* (Cooper Underwing), *Orthosia rufina* (Flounced Chestnut), *O. macilenta* (Yellow Line Quaker), *Calymnia pyralina* (Lunar Spotted Pinion), *Eupithecia subfulvata* (Tawny Speck), and *Cidaria miata* (Autumn Green Carpet).

Of the foregoing, *Nonagria typhae, Calymnia pyralina* and *Orthosia rufina* are not in the list of Lepidoptera published in the *Transactions* for the year 1908, and the last-named of these three has also been recorded by Mr. Seward for Skellingthorpe.

Mr. Alston also reports *Asteroscopus sphinx* (The Sprawler), captured in 1920; *Dianthoecia barrettii* (Scarce Marbled Coronet), taken 1906; and *Hecatera dysodea* (The Small Ranunculus), taken by his son two or three years ago.

We are pleased to record the capture of the Comma (*V. c-album*) in the County for June 1920, by Mr. H. Morris.

VERTEBRATE ZOOLOGY.

W. S. Medlicott.

Notes from 1st November 1920, to 31st October 1921.

Raven. On good authority I learn that a Raven spent some days in the north-west of the County, near the Humber, about Christmas 1920.

Hawfinch. Several pairs frequented Normanby and nested.

Goldfinch. Decidedly fewer than in the previous three or more years in which it has been almost numerous.

Brambling. First arrived 1st October 1920; a fair number throughout the winter.

Lesser Redpoll. Very numerous as a breeding species, only a few remaining through the winter.

Woodlark. As recorded elsewhere, I saw this bird in Normanby Park, 31st March 1919. On the 26th April 1921, I again saw a bird of this species, curious to relate, on the same square yard! These are the only two I have seen in Lincolnshire in ten years. I hope it may yet be proved that it nests in North Lincolnshire.

White Wagtail. I saw one, 4th April 1921.

Goldcrest. It has now almost re-established itself in normal numbers, after being nearly exterminated in the spring of 1917.

Longtailed Tit. Now more numerous in North Lincolnshire than it has been for ten years.

Grasshopper Warbler. This species returned to Scotton Common last spring, but to a different spot. It probably nested, but a nest was not found.

Wood Warbler. Did not nest at Normanby last summer; a bird returned to the old haunt, but stayed only three days.

Ring Ouzel. In a letter, dated 4th January 1921, Major Stuart Maples says: "Whilst shooting at Cloot House, Crowland, last week, I shot a Ring Ouzel (*Turdus torquatus*) a female. The bird was in poor condition, but I have

preserved it for my collection of skins. It is the first of its kind I have ever seen in the Fens, and in any case the bird should have left the country on migration at least two months ago'.

Fieldfare. I saw five, 4th May 1921, a little late. The first to arrive in the autumn of 1921 appeared on the 30th October.

Nightingale. A splendid singer performed night after night for several weeks last spring within 300 yards of the town of Scunthorpe.

Lesser Spotted Woodpecker. A pair certainly thought of nesting in Normanby Park. I watched both birds for several days. I suspect they nested, but I could not locate the exact spot.

Short-eared Owl. In my report last year, I said: 'I have had reason to hope that I might find this bird nesting in the north of the County, but so far I have been disappointed'. I am no longer disappointed, for this spring I found two nests and definite proof of a third in the shape of a young bird, all within half-a-mile of each other. On several occasions I saw five old birds on the wing at one time. Occasionally they flew to such a great height, at mid-day, with a brilliant sun and no clouds, that it was difficult to keep them in view. Straight above me, they were merely the tiniest of specks. They rise at a great pace by flying head to wind without progressing or being carried back. At first one does not realize that they are going up, but they soon become dots in the sky, several thousand feet up. In thus ascending, they sometimes take a circle round, but the ascent is generally made almost in a perpendicular line. The two nests I found contained seven and six eggs respectively. I visited the nests a number of times. It was quite evident that the eggs were laid in pairs, at intervals of five or six days between each pair, in the case of both nests. Two young birds would first be hatched; then two more five or six days later; then two more again with the same interval. Each pair, on

attaining the age of about fourteen days, disappeared from the nest, probably into the surrounding heather. Most books say that the birds do not perch in trees; but this statement is quite inaccurate, for all the Short-eared Owls which I had under observation were continually perching in trees. I think it is probable that, if undisturbed, they normally sit on the ground during the day, but, if there is anyone about, or towards evening, they would be on the bushes and in trees as much as, or more than, on the ground. The bird is very clever at drawing one away from the nest or young. I was well deceived the first few times. One of the parent birds will be hovering thirty feet above the intruder *at all times* when he is within four hundred yards of the nest or young. When he gets to thirty yards from the nest or young, if watching the parent bird, he will see her suddenly dash off very swiftly, in a straight line, just over the top of the heather, and hurl herself into a thick bush, or behind a tree, forty yards away—she will then squeal almost exactly like a young rabbit in terror. The intruder, if he is taken in, as I was, will immediately run to the spot, expecting to find the Owl with her talons in some victim, but he will be disappointed, for when he gets to within a few feet of the bush or tree, the old Owl will fly up, and begin her flopping flight and heckling alarm-cry again over the intruder's head, having successfully lured him from the home circle. This performance is so normal, and so sure to happen, that I actually found a young owlet by itself in very thick heather, by getting the old Owl to carry out this trick four times, and acting exactly contrary to what she wanted me to do. I gathered all the pellets (castings) from both nests, about two double handfuls, and sent them for examination—they contained chiefly bones, fur, &c., of field mice and voles, with a few bird feathers, and one starling's foot.

Long-eared Owl. I was shown a 'nest' on the ground near Normanby. It was merely a scratching in the ground, surrounded by dead branches and bracken to the height

of five feet. The opening in the surrounding cover was about four feet in diameter. The 'nest' contained three young birds, and the old bird, which allowed many visitors to inspect her, and even stroke her, without moving. This species usually nests in a tree, twenty or thirty feet up.

Little Owl. This species is again becoming numerous, after having been reduced in numbers in 1920.

Golden Eagle. One was shot at, and secured unharmed near Langton-by-Spilsby about the second week in November 1920. It was sent to the Zoological Gardens, London.

Peregrine Falcon. I watched a fine Falcon of this species for five minutes sailing round and above Lincoln Cathedral, 11th November 1920. About ten were seen, and several were caught on the coast south of Grimsby in the autumn of 1920.

Merlin. I have a live female, caught on a decoy plover near Tetney Lock about the 29th September 1921.

Grey Geese (probably the Pink-footed) arrived in the Humber district on the 16th September 1921.

From information received from persons who have shot most geese near the Humber, it appears that the Pink-footed Goose is much the commonest; occasionally a White-fronted Goose is procured, and more uncommonly still, a Grey Lag. I have reason to believe also, but without proof, that a few Bean Geese come there.

Tufted Duck. I saw two nests of this species, as well as two broods of young, and old birds, near Gainsborough, this summer. Down from the nest in both cases was pronounced to be that of the Tufted Duck by the authorities at the South Kensington Natural History Museum.

Green Sandpiper. Three or four were frequenting certain waters in North Lincolnshire, 17th July 1921.

Curlew. Last year I recorded that this bird undoubtedly hatched young in the north of the County. This summer I found a nest with eggs, all of which hatched out safely.

Quail. I learn on good authority that there have been one or two broods each year in 1919, 1920 and 1921, near Sleaford.

Black Grouse appear to be increasing in North Lincolnshire. They undoubtedly nest. I have seen a young bird this summer, and many old birds: and I am informed that eighteen were put up in one lot by a keeper at the place they haunt.

On the occasion of the Field Meeting held on the 5th July, I visited the Cleethorpes district and explored the coast to three miles south of Cleethorpes. I was able to record only twenty-five species: Linnet, Missel Thrush, Starling, Meadow Pipit, House Sparrow, Skylark, Sand Martin, Reed Bunting, Yellow Hammer, Corn Bunting, Rook, Black-headed Gull, Herring Gull, Pied Wagtail, Curlew, Ringed Plover, Lesser Black-backed Gull, Mallard, Blue Tit, Heron, Stockdove, Swift, Turtle Dove, Wheatear and Redshank. I found nests of Reed Bunting (with three eggs) and Ringed Plover (with four eggs). This district is not a very good one from an ornithologist's point of view at this time of the year.

On the 3rd October 1921, Mr. G. H. Caton Haigh, of Grainsby, reported migratory movements as follows:

Up to the 19th September 1921, only an occasional Redstart and Willow Wren.

September 14th. A Lapland Bunting.

September 19th. A small passage of Redstarts and Hedge-Sparrows; three Goldcrests and a Willow Wren; also a lot of Wigeon.

September 20th. Much the same as on the preceding day, but three Pied Flycatchers.

September 21st. Again much the same, but a flight of Peewits.

September 23rd. Flight about over. Saw half-a-dozen Redstarts, one Goldcrest, and procured a Yellow-browed Warbler.

September 24th. A Blackcap (male).

September 27th. A good flight of Peewits.

September 29th. Two Merlins and two Goldcrests.

September 30th. Two Grey Crows; flock of Redwings; and one Great Tit.

Shore birds, except Curlews and Godwits, have been scarce. There were a few Curlew Sandpipers on September 2nd; Turnstones on the 9th; a Dusky Redshank on the 16th; and a Dotterel was seen about this date.

GEOLOGICAL REPORT, 1921.

H. Preston, F.G.S.

The Field Meeting at Frieston Shore on the 8th September proved to be both interesting and instructive. In the first place, the year 1921 was the centenary of an important event in the history of sea-bathing and summer holidays on that part of the Lincolnshire coast, and in the second place, the visit led to the consideration of a rather important problem in Lincolnshire coast geology.

From an old Coaching Bill that had quite recently come into my possession, I had expected to find a good sandy shore, but instead of this I found a long reach of mud flats, the tide receding as much as three miles from the Bank.

The old Bill, which was dated 1821, stated that the new Post Coach "The British Queen" would commence running from Nottingham to Boston (passing through Grantham) on Whit-Monday, June 11th, 1821. It further stated that the journey would be made on four days each week during the bathing and summer season. Tea was to be provided at the Rodney and Hood, "where gentlemen may be provided with saddle horses, and ladies with a horse and gig and careful drivers, to any part of the shore-houses at Frieston", the same night. Incidentally we learn that the journey took twelve hours.

From this Bill, I had rather expected to find a pleasant sea-side resort, with a good sand beach. The great stretch of mud-flats, with a network of marine gullies, was somewhat

of a surprise, and the crossing of the gullies proved no easy matter owing to the greasy nature of the ground. The air, of course, was superb, and the botany of the salt marshes was interesting.

During the tea hour someone mentioned a report that was current to the effect that there used to be an annual gathering at Frieston Shore for Pony Racing, and I wondered where, on this great stretch of mud, with its reticulated surface of salt-water ditches, a bit of land could be found for forming a course. This little story would not have interested me much had not further inquiries in Boston led me to a knowledge of an interesting example of modern geological change in connection with the marshes at Frieston Shore. I learned that some eighty or one hundred years ago the shore at Frieston was a clean, white, hard sand, quite suitable for the sea-bathing which the proprietor of the old Coach had advertised, and also for the annual pony races which had been casually mentioned. I also learned that years ago the tide sometimes flowed up the River Witham with dangerous rapidity, and that a common shout used to be—

> " Flood hoa ! fly hoa !
> The tide's a-coming higher ".

Some time in the last century a new cut was made connecting a higher reach of the Witham, so as to bring some of the water into another part of the Wash, and also to prevent, as far as possible, the danger from the rushing tides. Since the opening of this new cut, the silt brought down by the Witham and its tributaries has found a fresh area of deposit, and the silver-sand-beach at Frieston has been covered to such an extent that the land side of the Bank is now several feet lower than the water side, and many parts of the Flats have, within the memory of living persons, risen more than three feet.

Of course, geological work is always going on, but it is seldom that we find so interesting a connection between old business announcements, casual reports and actual facts as we found in regard to the mud flats at Frieston Shore.

The Presidents

OF THE

Lincolnshire Naturalists' Union.

REV. FRANCIS LINLEY BLATHWAYT, M.A., M.B.O.U.

SOME of the Presidents of the Lincolnshire Naturalists' Union have been what may be termed all-round naturalists. Others have been specialists in particular branches of natural history. Three of them have been Members of the British Ornithologists' Union. The first of these, the late Mr. John Cordeaux, was one of the best ornithologists of his time, and he had a great and widespread reputation. The second was that keen and competent observer, Mr. G. H. Caton Haigh, who was President in 1913; and the third was Mr. Blathwayt, whose abilities and personal qualities admirably fitted him for the office. Not only had he a thorough knowledge of the subject of his own special study, but he had a significant faculty for fellow-work. His enthusiasm for bird-life was equalled by his sympathy with the work of those whose tastes led them to study botany, or entomology, or geology, or some other of the many branches into which natural history is divided.

Mr. Blathwayt was born 11th July 1875, at Ahmednuggar, in India, being the son of the late Charles George Blathwayt, who was in the Indian Civil Service. He was a scion of a family that has been associated with Gloucestershire for nearly two-and-a-half centuries, one of the most distinguished members of the family being William Blathwayt, who was Secretary-at-War during the last years of the reign of Charles II, and during the reigns of James II, William III, and Anne.

Mr. Blathwayt was educated at Malvern College, and at Hertford College, Oxford, where he graduated B.A , in 1899, proceeding M.A. in 1902. Having taken Orders, he held two curacies at Lincoln (at St. Swithin's 1900-1904, and at All Saints, 1904-1909). In 1909 he became Rector of Doddington,

REV. FRANCIS LINLEY BLATHWAYT, M.A., M.B.O.U.

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retaining the benefice until 1916, when the Earl of Ilchester presented him to the Rectory of Melbury St. Osmund with Melbury Sampford and Stockwood, co. Dorset.

From his youth Mr. Blathwayt has been interested in birds, and the problems connected with their migration. Some ornithologists consider a gun a *sine qua non*, but Mr. Blathwayt was not a naturalist of the sportsman type. It has been his practice to make observations of living birds by means of field glasses.

In 1914 he prepared an exhaustive list of the birds of this County, which was published in the *L.N.U. Transactions* for that year. He has also contributed bird notes to *The Zoologist*, to *British Birds*, and other journals; and he wrote the article on Birds for the *Victoria County History of Somerset*.

He was President of the L.N.U. for the year 1918. Since 1920 he has been President of the Ornithological Section of the Somerset Archæological and Natural History Society, and since 1918 Editor of the Natural History Reports in the Transactions of the Dorset Natural History and Antiquarian Field Club.

In whatever county he has resided, Mr. Blathwayt has paid attention to local bird life, and from time to time he has made interesting discoveries as to the habitats of rare birds, one of his latest discoveries being the fact that the Roseate Tern breeds in Dorset.

R. W. G.

"WHITE STOATS".—In January 1921, Miss Ruth Alston saw a stoat all white except the tail, near the church at Scrivelsby. A few days later, in Dalderby, she saw another stoat with white patches; and again, a few days later, her sister saw a similar stoat, nearly all white, except the head, a field away from the same place, which may have been the same animal. It seems strange that they should have turned white in such a very mild winter in which they are so conspicuous. She is well acquainted with albino ferrets, and feels sure the animals she saw were stoats.

FRANK S. ALSTON.

IN MEMORIAM.

REV. E. A. WOODRUFFE-PEACOCK.

The Lincolnshire Naturalists' Union has sustained a very great loss in the death of the Rev. E. Adrian Woodruffe-Peacock, L.Th., F.L.S., F.G.S., which occurred at Grayingham Rectory, at midnight on the 3rd February, 1922.

Mr. Peacock was a man of many attainments and activities, but he was best known as a capable and experienced field naturalist. He will be greatly missed, particularly by those who are interested in the natural history of Lincolnshire, for he accomplished probably more than any other single worker in the accumulation of facts relating to the distribution of plants and animals in the county in which he was born, and in which he spent the greater part of his life. He was one of the founders of the Lincolnshire Naturalists' Union in 1893; for ten years he was its Organizing Secretary; he was its President in 1915-6; during the entire period of its existence he has been its moving spirit, and he was once aptly described by the late Canon William Fowler as its "nursing father". He was an all-round naturalist. Full of enthusiasm himself, he inspired enthusiasm in others, and he was ever ready to help and encourage fellow-workers and junior students. From his youth up he was an indefatigable observer and note-taker—"a humble recorder of trifling every-day facts" is the description he gave of himself in the preface to his "Check-List of Lincolnshire Plants" published in 1909.

Phanerogamic Botany was his special study, and he devoted the leisure of many years to the compilation of a flora on ecological lines. Mr. A. G. Tansley, F.R.S., of Cambridge, was so much impressed by a perusal of the MS. of this flora that he offered to bear the expense of its publication. "It carries out", he wrote, "the centre thought of ecology. You go for twenty or thirty years to work the same bit of ground annually to discover its changes. As you are willing to sacrifice any time to get at the facts, you have discovered the obscure laws lying behind them". This offer was a great

encouragement to Mr. Peacock who, so long as health permitted, was engaged in making a final revision of his MS. for the press. The Flora has been left to the University of Cambridge.

Mr. Peacock was thorough in everything he undertook. In his preaching he always made it his aim to get a series of correlated ideas for every address, and he then endeavoured to give expression to his thoughts in plain, simple, forcible language.

He was the eldest son of the well-known antiquary, Edward Peacock, F.S.A., of Bottesford Manor. He was born there on the 23rd July 1858; and was educated first at Edinburgh Academy, then at St. John's College, Cambridge, and at Bishop Hatfield's Hall, Durham, where he took the degree of L.Th. in 1880. After holding curacies at Long Benton, Barkingside and Harrington, he became Vicar of Cadney in 1891, remaining there until 1920, when he was appointed Rector of Grayingham. He contributed many articles on natural history topics to scientific journals and to the press, and he wrote a number of pamphlets on the relations of particular grasses to particular soils. He is survived by a widow and three sons.

R. W. G.

MARINE ZOOLOGY.

A. Smith & F. Hind.

STARFISHES.

The Lincolnshire coast cannot be said to be productive of many species. Two forms of Starfish, the Five-rayed and the Sun, are exceedingly abundant, and in the Wash area they are a pest on the beds of shell-fish protected for food. The other species named in this short list have been stranded after heavy seas. Some may be indigenous to the deeper waters off the coast; others may have been carried from waters beyond the limits of the County.

Ophiura ciliaris Linn. (Common Sand-Star). Rarely found on the coast, though frequently dredged from the North Sea.

O. albida Forbes. (Lesser Sand-Star). Not common. Found among debris washed up after storms.

Ophiothrix. fragilis Linn. (Common Brittle Star). Frequently found, particularly among the Oyster and Mussel beds in the south of the County.

Asterias rubens Linn. (Five-rayed Starfish). Very common; left stranded by almost every heavy tide.

Henricia sanguinolenta Mull. (Eyed Cribella). Very rare. Supposed to have been carried down from the east coast of Scotland.

Solaster papposus Mull. & Tr. (Common Sun-Star). Very common, particularly along the southern half of the County.

Astropecten irregularis Penn. (The Butthorn). One specimen taken at Clee, thrown ashore amongst a tangle of weed during a heavy gale.

TEREBELLA CONCHILEGA

Terebella conchilega is one of the many marine worms of the Lincolnshire coast, and it is locally known as the sand-mason, or sand-binder. After a rough sea, great numbers of tubes are cast up, composed of grains of sand and fragments of shell. These dainty and fragile structures attract the attention of shore-collectors, as in many cases the variegated colourings of the tiny pieces of shell give them a very beautiful appearance. These are portions of the tube that have been broken off by the action of the waves, and it is within the tube that the animal lives. It is particularly plentiful at Mablethorpe, and by following the receding tide, the collector may see small portions of the tube standing above the sand in all directions. When just covered with water, the opening of the tube will be filled out by the animal that has come to the orifice, protruding its filaments and rich scarlet gills. The worm attains a size of some ten inches, and the colour is very variable, often rosy-tinted. The tubes are much longer, and the animal is continually at work, constructing or repairing, binding together its materials of sand and shell-fragments by means of a secretion, but at the slightest indication of danger, it recedes within the tube for protection. Though it is so plentiful, it is not easy to obtain a specimen in perfect condition, as the tube goes far below the surface. The animal is a fine object for an aquarium, and may sometimes construct a tube under conditions by which it can be seen at work. There are several other species of *Terebella* to be seen on the Lincolnshire coast, but *conchilega* is by far the most frequently observed. The upper part of the body has tufts of bristles, and the head is fringed with long filaments and tufted gills. The anterior portion consists of many segments, provided with tiny hook-like processes that doubtless provide it with the means by which it ascends its tube, and rapidly descends for security.

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